

CLAIMS

What is claimed is:

1 1. A housing for a variable displacement hydraulic pump having a total of six side
2 portions comprised of an open first longitudinal end, a spaced, open second longitudinal
3 end, and four adjoining radial sides connecting said longitudinal ends, and a porting
4 system with four case drains such that an orifice for each of said case drains is located in
5 the vicinity of the top surface of said housing when any one of said six sides is so
6 spatially positioned that it occupies an upwardly directed generally horizontal surface
7 position.

1 2. The housing as in claim 1 wherein said variable displacement pump is of a light
2 duty variety.

1 3. A housing for a variable displacement hydraulic pump having multiple external
2 surfaces, with at least one case drain orifice in at least two differing ones of said external
3 surfaces.

1 4. The housing as in claim 3 wherein said pump is a light duty pump.

1 5. The housing as in claim 4 wherein one of said case drain orifices is located in an
2 upwardly-directed generally horizontal surface position, regardless of the spatial
3 orientation of said housing.

1 6. The housing as in claim 4 wherein one of said case drain orifices is located at an
2 upper-most section of said housing in any spatial orientation of said housing.

1 7. The housing as in claim 4 wherein one of said at case drain orifices is located at
2 the front-most section of said housing in any spatial orientation of said housing.

1 8. The housing as in claim 4 wherein one of said case drain orifices is located at the
2 rear-most section of said housing in any spatial orientation of said housing.

1 9. The housing as in claim 4 wherein one of said case drain orifices is located at the
2 bottom-most section of said housing in any spatial orientation of said housing.

1 10. A light duty, variable displacement hydraulic pump having a multi-sided surface
2 housing and an attached endcap wherein said housing has at least one case drain orifice in
3 differing ones of at least three housing surfaces, said orifices being located near an upper-
4 most surface of said pump in any spatial orientation of said pump.

1 11. In a variable displacement hydraulic pump having a housing with a multiplicity of
2 interconnected surfaces, including opposed end surfaces and intermediate side surfaces,
3 the improvement comprising the location of at least one case drain orifice in each of a
4 plurality of differing ones of said surfaces in a manner such that at least one of said
5 orifices is located in the vicinity of the top surface of said housing in any spatial
6 orientation of said housing.

1 12. The improved housing of claim 11, wherein said variable displacement hydraulic
2 pump is of a light duty variety.

1 13. The improved housing of claim 11, wherein said housing includes two end
2 surfaces and a plurality of intermediate side surfaces.

1 14. The improved housing of claim 12, wherein said case drain orifices are located
2 within at least some of said plurality of intermediate side surfaces.

1 15. The improved housing of claim 13 wherein said at least some of said plurality of
2 intermediate side surfaces is no less than three.